IN THE CLAIMS

Please amend Claims 60-84 as follows:

1. (Original) A communication circuit comprising:

a near end transmitter;

a hybrid having an input in communication with an output of said near end transmitter;

a near end replication transmitter;

a high pass filter responsive to said near end replication transmitter;

a subtractor to subtract an output from said high pass filter from the output from said near end transmitter and an output of said hybrid; and

a near end receiver responsive to an output of said subtractor.

2. (Original) A communication circuit of Claim 1, wherein said hybrid comprises an isolation transformer.

3. (Original) A communication circuit of Claim 1, wherein said hybrid comprises an active circuit.

4. (Original) A communication circuit of Claim 1 wherein said near end replication transmitter is adjustable.

5. (Original) A communication circuit of Claim 4, wherein said near end replication transmitter comprises a current generator in communication with an adjustable load.

6. (Original) A communication circuit of Claim 4, wherein said near end replication transmitter comprises an adjustable current generator in communication with a load.

7. (Original) A communication circuit of Claim 1, further comprising an adjustable capacitive load in communication with said near end replication transmitter to maximize signal delay matching between said near end transmitter and said near end replication transmitter.

8. (Original) A communication circuit of Claim 7, further comprising an adaptive control circuit, wherein said adjustable capacitive load is responsive to said adaptive control circuit.

9. (Original) A communication circuit of Claim 1, wherein said high pass filter comprises an inductor having similar characteristics as said hybrid.

10. (Original) A communication circuit of Claim 1, wherein said high pass filter comprises a combination of a resistance and a capacitance.

11. (Original) A communication circuit comprising:

a near end transmitter;

a hybrid having an input in communication with an output of said near end transmitter;

a near end adjustable replication transmitter;

a subtractor to subtract an output from said near end adjustable replication transmitter from the output from said near end transmitter and said hybrid; and

a near end receiver responsive to an output of said subtractor.

12. (Original) A communication circuit of Claim 11, wherein said near end adjustable replication transmitter comprises a current generator in communication with an

adjustable load.

13. (Original) A communication circuit of Claim 11, wherein said near end adjustable replication transmitter comprises an adjustable current generator in communication with a load.

14. (Original) A communication circuit of Claim 11, wherein said near end adjustable replication transmitter maximizes the amplitude matching between said near end transmitter and said near end adjustable replication transmitter.

15. (Original) A communication circuit of Claim 11, further comprising an adjustable capacitive load in communication with said near end adjustable replication transmitter to maximize signal delay matching between said near end transmitter and said near end adjustable replication transmitter.

16. (Original) A communication circuit of Claim 15, further comprising an adaptive control circuit, wherein said adjustable capacitive load is responsive to said adaptive control circuit.

17. (Original) A communication circuit comprising:

near end transmitting means for transmitting a transmitted signal;

hybrid means having an input in communication with an output of said near end transmitting means for communicating the transmitted signal to and a received signal from a channel;

near end replication transmitting means for generating a replication signal;

high pass filter means for high pass filtering the replication signal;

subtracting means for the high pass filtered replication signal from the

transmitted and received signals; and

near end receiving means for receiving an output signal from said subtracting means.

18. (Original) A communication circuit of Claim 17, wherein said hybrid means comprises an isolation transformer.

19. (Original) A communication circuit of Claim 17, wherein said hybrid means comprises an active circuit.

20. (Original) A communication circuit of Claim 17, wherein said near end replication transmitting means is adjustable.

21. (Original) A communication circuit of Claim 20, wherein said near end replication transmitting means comprises a current generator means for generating a current and in communication with an adjustable load.

22. (Original) A communication circuit of Claim 20, wherein said near end replication transmitting means comprises an adjustable current generator means for generating a current in communication with a load.

23. (Original) A communication circuit of Claim 20, wherein said near end replication transmitting means maximizes the amplitude matching between said near end transmitting means and said near end replication transmitting means.

24. (Original) A communication circuit of Claim 17, further comprising an adjustable capacitive load means in communication with said near end replication transmitting

means for maximizing signal delay matching between said near end transmitting means and said near end replication transmitting means.

25. (Original) A communication circuit of Claim 24, further comprising an adaptive control means for controlling said adjustable capacitive load.

26. (Original) A communication circuit of Claim 17, wherein said high pass filter means comprises an inductor means having similar characteristics as said hybrid means.

27. (Original) A communication circuit of Claim 17, wherein said high pass filter means comprises a combination of a resistance and a capacitance.

28. (Original) A communication circuit comprising:

near end transmitting means for transmitting a transmitted signal;

hybrid means having an input in communication with an output of said near end transmitting means for communicating the transmitted signal to and a received signal from a channel;

near end adjustable replication transmitting means for generating an adjustable replication signal;

subtracting means for subtracting the adjustable replication signal from the received signal and the transmitted signal; and

near end receiving means for receiving an output of said subtracting means.

29. (Original) A communication circuit of Claim 28 wherein said near end adjustable replication transmitting means comprises a current generator means for generating a current and in communication with an adjustable load.

30. (Original) A communication circuit of Claim 28, wherein said near end adjustable replication transmitting means comprises an adjustable current generator means for generating a current in communication with a load.

31. (Original) A communication circuit of Claim 28, wherein said near end adjustable replication transmitting means maximizes the amplitude matching between said near end transmitting means and said near end adjustable replication transmitting means.

32. (Original) A communication circuit of Claim 28, an adjustable capacitive load means in communication with said near end adjustable replication transmitting means for maximizing signal delay matching between said near end transmitting means and said near end adjustable replication transmitting means.

33. (Original) A communication circuit of Claim 32, further comprising an adaptive control means for controlling said adjustable capacitive load.

34. (Original) A communication circuit of Claim 4, wherein said near end replication transmitter maximizes the amplitude matching between said near end transmitter and said near end replication transmitter.

35. (Original) A communication method comprising the steps of:

(a) transmitting a transmitted signal;

(b) combining the transmitted signal with a received signal from a channel;

(c) generating a replication signal;

(d) high pass filtering the replication signal;

(e) subtracting the high pass filtered replication signal from the transmitted and received signals; and

(f) receiving an output signal from step (e).

36. (Original) A communication method of Claim 35, further comprising the step of (g) adjusting the replication signal.

37. (Original) A communication method of Claim 36, wherein step (g) comprises the steps of adjusting a current and adjusting a load.

38. (Original) A communication method of Claim 36, wherein step (g) comprises the step of adjusting a current.

39. (Original) A communication method of Claim 36, wherein step (g) comprises the steps of maximizing the amplitude matching between the replication signal and the transmitted signal.

40. (Original) A communication method comprising the steps of:

(a) transmitting a transmitted signal;

(b) combining the transmitted signal with a received signal from a channel;

(c) generating a replication signal;

(d) adjusting the replication signal;

(e) subtracting adjusted replication signal from the transmitted and received signals; and

(f) receiving an output signal from step (e).

41. (Original) A communication method of Claim 40, wherein step (d) comprises the steps of adjusting a current and adjusting a load.

42. (Original) A communication method of Claim 40, wherein step (d) comprises the

step of adjusting a current.

43. (Original) A communication method of Claim 40, wherein step (d) comprises the steps of maximizing the amplitude matching between the replication signal and the transmitted signal.

44. (Original) A communication circuit comprising:

a near end circuit comprising:

a near end transmitter;

a near end hybrid having a first terminal in communication with an output of said near end transmitter and a second terminal;

a near end replication transmitter;

a near end high pass filter responsive to said near end replication transmitter;

a near end subtractor to subtract an output from said near end high pass filter from the output from said near end transmitter and said near end hybrid; and

a near end receiver responsive to an output of said near end subtractor; and

a far end circuit comprising:

a far end transmitter;

a far end hybrid having a third terminal in communication with an output of said far end transmitter and a fourth terminal in communication with the second terminal of said near end hybrid;

a far end replication transmitter;

a far end high pass filter responsive to said far end replication transmitter;

a far end subtractor to subtract an output from said far end high pass filter from the output from said far end transmitter and said far end hybrid; and

a far end receiver responsive to an output of said far end subtractor.

45. (Original) A communication circuit comprising:

a near end circuit comprising:

a near end transmitter;

a near end hybrid having a first terminal in communication with an output of said near end transmitter and a second terminal;

a near end adjustable replication transmitter;

a near end subtractor to subtract an output from said near end adjustable replication transmitter from the output from said near end transmitter and said near end hybrid; and

a near end receiver responsive to an output of said near end subtractor; and

a far end circuit comprising:

a far end transmitter;

a far end hybrid having a third terminal in communication with an output of said far end transmitter and fourth terminal in communication with said second terminal of said near end hybrid;

a far end adjustable replication transmitter;

a far end subtractor to subtract an output from said far end adjustable replication transmitter from the output from said far end transmitter and said far end hybrid; and

a far end receiver responsive to an output of said far end subtractor.

46. (Original) A communication circuit comprising:

near end communication means comprising:

near end transmitting means for transmitting a first signal;

near end hybrid means having a first terminal in communication with an output of said near end transmitting means for communicating the first signal to and in

communication with a second signal from a channel;

near end replication transmitting means for transmitting a near end replication signal;

near end high pass filter means for high pass filtering the near end replication signal;

near end subtracting means for subtracting the near end high pass filtered replication signal from the first signal from said near end transmitting means and the second signal from said near end hybrid means; and

near end receiving means for receiving an output signal from said near end subtracting means; and

far end communication means comprising:

far end transmitting means for transmitting the second signal;

far end hybrid means having a second terminal in communication with an output of said far end transmitting means for communicating the second signal to and the first signal from the channel;

far end replication transmitting means for generating a far end replication signal;

far end high pass filter means for high pass filtering the far end replication signal;

subtracting means for the far end high pass filtered replication signal from the second signal from the far end transmitting means and the first signal from said far end hybrid means; and

far end receiving means for receiving an output signal from said subtracting means.

47. (Original) A communication circuit comprising:

near end communication means comprising:

near end transmitting means for transmitting a first signal;

near end hybrid means having an input in communication with an output of said near end transmitting means for communicating the first signal to and a second signal from a channel;

near end adjustable replication transmitting means for generating a near end adjustable replication signal;

near end subtracting means for subtracting the near end adjustable replication signal from the first signal from said near end transmitting means and the second signal from said near end hybrid means; and

near end receiving means for receiving an output of said near end subtracting means; and

far end communication means comprising:

far end transmitting means for transmitting the second signal;

far end hybrid means having an input in communication with an output of said far end transmitting means for communicating the second signal to and the first signal from the channel;

far end adjustable replication transmitting means for generating a far end adjustable replication signal;

far end subtracting means for subtracting the far end adjustable replication signal from the second signal from said far end transmitting means and the first signal from said far end hybrid means; and

far end receiving means for receiving an output of said far end subtracting means..

48. (Original) A communication method comprising the steps of:

(a) transmitting a first signal;

(b) combining the first signal with a second signal from a channel;

(c) generating a first replication signal;

(d) high pass filtering the first replication signal;

(e) subtracting the high pass filtered first replication signal from the first and second signals;

(f) receiving an output signal from step (e);

(g) transmitting the second signal;

(h) combining the second signal with the first signal from the channel;

(i) generating a second replication signal;

(j) high pass filtering the second replication signal;

(k) subtracting the high pass filtered second replication signal from the first and second signals; and

(l) receiving an output signal from step (k).

49. (Original) A communication method comprising the steps of:

(a) transmitting a first signal;

(b) combining the first signal with a second signal from a channel;

(c) generating a first replication signal;

(d) adjusting the first replication signal;

(e) subtracting the adjusted first replication signal from the first and second signals;

(g) receiving an output signal from step (e);

(g) transmitting the second signal;

(h) combining the second signal with the first signal from the channel;

(i) generating a second replication signal;

(j) adjusting the second replication signal;

(k) subtracting the adjusted second replication signal from the first and second signals; and

(l) receiving an output signal from step (k).

50. (Original) A communication circuit of Claim 5, further comprising a calibration circuit to adjust the adjustable load against a reference load.

51. (Original) A communication circuit of Claim 1, wherein said near end replication transmitter comprises a voltage multiplier.

52. (Original) A communication circuit of Claim 12, further comprising a calibration circuit to adjust the adjustable load against a reference load.

53. (Original) A communication circuit of Claim 11, wherein said near end adjustable replication transmitter comprises a voltage multiplier.

54. (Original) A communication circuit of Claim 21, further comprising a calibration means for calibrating the adjustable load against a reference load.

55. (Original) A communication circuit of Claim 17, wherein said near end replication transmitting means comprises a voltage multiplier means for multiplying an output of said replication transmitting means.

56. (Original) A communication circuit of Claim 29, further comprising a calibration means for calibrating the adjustable load against a reference load.

57. (Original) A communication circuit of Claim 28, wherein said near end adjustable replication transmitting means comprises a voltage multiplier means for multiplying an output of said near end adjustable replication transmitting means.

58. (Original) A method of Claim 35, wherin step (c) comprises the step of multiplying an

output of the replication signal.

59. (Original) A method of Claim 37, further comprising the step of calibrating the load against a reference load.

60. (New) A communication circuit comprising:

a near end transmitter comprising at least one near end current source;

a near end replication transmitter comprising at least one replication current source arranged in series to generate a replication voltage across a replication resistance,

wherein said at least one replication current source corresponds to a respective one of said at least one near end current source, and

wherein said at least one replication current source is in electrical communication with a respective one of said at least one near end current source.

61. (New) A communication circuit according to Claim 60, wherein each said at least one near end current source comprises a near end transistor,

wherein each said at least one replication current source comprises a replication transistor, wherein a gate of a corresponding near end transistor is coupled to a gate of a respective near end transistor.

62. (New) A communication circuit according to Claim 61, wherein the replication voltage is scaled in accordance with a size of the replication resistance and a size of said at least one replication current transistor.

63. (New) A communication circuit according to Claim 60 further comprising:

a hybrid having an input in communication with an output of said near end

transmitter;

a subtractor to subtract an output from said near end replication transmitter from the output from said near end transmitter and an output of said hybrid; and

a near end receiver responsive to an output of said subtractor.

64. (New) A communication circuit according to Claim 63 wherein said hybrid comprises:

an output resistance; and

and a transformer.

65. (New) An ethernet transciever comprising:

a near end transmitter comprising at least one near end current source;

a near end replication transmitter comprising at least one replication current source arranged in series to generate a replication voltage across a replication resistance,

wherein said at least one replication current source corresponds to a respective one of said at least one near end current source, and

wherein said at least one replication current source is in electrical communication with a respective one of said at least one near end current source.

66. (New) An Ethernet transceiver according to Claim 65, wherein each said at least one near end current source comprises a near end transistor,

wherein each said at least one replication current source comprises a replication transistor, wherein a gate of a corresponding near end transistor is coupled to a gate of a respective near end transistor.

67. (New) An Ethernet transceiver according to Claim 66, wherein the replication

voltage is scaled in accordance with a size of the replication resistance and a size of said at least one replication current transistor.

68. (New) An Ethernet transceiver according to Claim 65 further comprising:

a hybrid having an input in communication with an output of said near end transmitter;

a subtractor to subtract an output from said near end replication transmitter from the output from said near end transmitter and an output of said hybrid; and

a near end receiver responsive to an output of said subtractor.

69. (New) An Ethernet transceiver according to Claim 68 wherein said hybrid comprises:

an output resistance; and

and a transformer.

70. (New) An Ethernet transceiver according to Claim 68, wherein said Ethernet transceiver is compliant with IEEE 802.3ab.

71. (New) A communication circuit comprising:

near end transmitter means for transmitting comprising at least one near end current source means for sourcing current ;

near end replication transmitter means for transmitting comprising at least one replication current source means for sourcing current arranged in series for generating a replication voltage across a replication resistance means,

wherein said at least one replication current source means corresponds to a respective one of said at least one near end current source means, and

wherein said at least one replication current source means is in electrical

communication with a respective one of said at least one near end current source means.

72. (New) A communication circuit according to Claim 71, wherein each said at least one near end current source means comprises a near end transistor,

wherein each said at least one replication current source means comprises a replication transistor, wherein a gate of a corresponding near end transistor is coupled to a gate of a respective near end transistor.

73. (New) A communication circuit according to Claim 72, wherein the replication voltage is scaled in accordance with a size of the replication resistance means and a size of said at least one replication current transistor means.

74. (New) A communication circuit according to Claim 71 further comprising:

hybrid means having an input in communication with an output of said near end transmitter means;

subtractor means for subtracting an output from said near end replication transmitter means from the output from said near end transmitter means and an output of said hybrid means; and

near end receiving for receiving an output of said subtractor means.

75. (New) A communication circuit according to Claim 74 wherein said hybrid means comprises:

output resistance means; and

and transformer means for transforming a signal.

76. (New) An ethernet transciever comprising:

near end transmitter means for transmitting comprising at least one near end current source means for sourcing current ;

near end replication transmitter means for transmitting comprising at least one replication current source means for sourcing current arranged in series for generating a replication voltage across a replication resistance means,

wherein said at least one replication current source means corresponds to a respective one of said at least one near end current source means, and

wherein said at least one replication current source means is in electrical communication with a respective one of said at least one near end current source means.

77. (New) An Ethernet transceiver according to Claim 76, wherein each said at least one near end current source means comprises a near end transistor,

wherein each said at least one replication current source means comprises a replication transistor, wherein a gate of a corresponding near end transistor is coupled to a gate of a respective near end transistor.

78. (New) An Ethernet transceiver according to Claim 77, wherein the replication voltage is scaled in accordance with a size of the replication resistance means and a size of said at least one replication current transistor means.

79. (New) An Ethernet transceiver according to Claim 76 further comprising:

hybrid means having an input in communication with an output of said near end transmitter means;

subtractor means for subtracting an output from said near end replication transmitter means from the output from said near end transmitter means and an output of said hybrid means; and

near end receiving for receiving to an output of said subtractor means.

80. (New) An Ethernet transceiver according to Claim 79 wherein said hybrid means comprises:

output resistance means; and

and transformer means.

81. (New) An Ethernet transceiver according to Claim 79, wherein said Ethernet transceiver is compliant with IEEE 802.3ab.

82. (New) A transceiving method comprising:

(a) generating a near end signal by:

(a1) generating a plurality of near end currents, and

(a2) summing the generated plurality of near end currents generated in step (a1); and

(b) generating a replication signal by:

(b1) generating a plurality of replication currents in accordance with the generated plurality of near end currents generated in step (a1),

(b2) summing the generated plurality of replication currents generated in step (b1),

83. (New) A transceiving method according to claim 82 wherein step (b) further comprise:

(b3) converting the summed replication currents summed in step (b2) to a voltage

84. (New) A transceiving method according to claim 82 further comprising:

(c) combining a received signal with the near end signal generated in step (a);

(d) subtracting the replication signal in step (b) from the combined signal in step (c); and

(e) receiving an output from step (d).